

Applicant : Raymond G. Schuder et al.
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Attorney's Docket No.: 10002621-2
Amendment dated: Feb. 7, 2008
Reply to Office action dated: Nov. 13, 2007

Remarks

I. Status of Claims

Claims 9-13, 21-30, and 36-39 are pending.

Claims 25 and 26 have been allowed.

II. Claim rejections under 35 U.S.C. § 103

A. Claims 9, 10, 21-24, 27-29, 36, and 37-39

The Examiner has rejected claims 9, 10, 21-24, 27-29, 36, and 37-39 under 35 U.S.C. § 103(a) over Watson (U.S. 3,847,718) in view of Card (U.S. 3,739,412).

1. Independent claim 9

Independent claim 9 recites:

9. A bookbinding system, comprising:

a sheet binder configured to bind with an adhesive two or more sheets into an adhesively bound text body having an exposed spine bounded by two exposed side hinge areas;

an adhesive dispenser configured to apply a solid pressure sensitive adhesive film between a cover and the side hinge areas of the text body; and

a cover binder configured to bind the cover to the side hinge areas of the text body by applying pressure to the cover.

In support of the rejection of claim 9, the Examiner has stated that (emphasis added):

Regarding claim 9, Watson discloses a bookbinding system, comprising: two or more sheets bound into a text body 15 having an exposed spine bounded by two exposed side hinge areas (not labeled, see figure 3); an adhesive dispenser (in the form of a roll, not shown, see column 2, lines 63-67) configured to apply a solid pressure sensitive adhesive film 40 between a cover 32 (see column 3, lines 5-13, substrate 12 may be made of a width sufficient to form cover 32) and the side hinge areas of the text

body 15; and a cover binder (not shown, see column 4, lines 38-46 and column 5, line 65 to column 6, line 2) configured to bind the cover to the side hinge areas of the text body by applying pressure to the cover.

Watson does not disclose a sheet binder configured to bind with an adhesive two or more sheets into an adhesively bound text body.

Card et al. teaches the use of a sheet binder configured to bind with an adhesive 3 two or more sheets 1 into an adhesively bound text body for the purpose of creating a bound text body that strengthens the binding of the final book. Therefore it would have been obvious to one having ordinary skill in the art at the time the invention was made to have combined the system of Watson with the sheet binder of Card et al. in order to have a bound book in which the sheets are more strongly bound together.

As acknowledged by the Examiner, Watson does not teach or suggest an adhesive dispenser that is configured to apply a solid pressure sensitive adhesive film between a cover and the side hinge areas of an adhesively bound text body, as recited in claim 9. Instead, Watson discloses that the text body is not bound with an adhesive until after the pressure sensitive adhesive strips 40 have been attached to the unbound sheets of the book 15. In particular, Watson explains that (emphasis added):

In use, cover strips 41 are removed to expose the adhesive 40 which, on application of pressure following insertion of the book 15 therebetween as described earlier, bonds the sides of substrate 12 to the outer pages of the book 15. The application of heat and pressure to the center portion or base of substrate 12 activates the low tack adhesive comprising stripe 14 to complete the bond in the manner described heretofore.

The reference to the earlier description in the underlined portion of this explanation corresponds to col. 4, lines 37-38, where Watson explains that “the loose pages comprising the book 15 are placed, edge first, on adhesive strip 14.”

The Examiner has relied on Card in an effort to make-up for Watson’s failure to disclose or suggest an adhesive dispenser that is configured to apply a solid pressure sensitive adhesive film between a cover and the side hinge areas of an adhesively bound text body, as recited in claim 9.

In accordance with Card's teachings, loose sheets 1 are held by a clamp (see FIG. 1) and shaped by hot plate sections 8, 9 to have a convex back edge (see FIG. 2). The convex back edge then is pressed against a support 3 that is formed of a lining material that is coated with a layer of meltable adhesive (see col. 3, lines 24-27), which is melted to adhere the support 3 to form the book body 1 (see FIG. 4, col. 4, lines 9-14). The support 3 additionally includes a pair of longitudinal elements 4 (e.g., paper strings) that are disposed on opposite sides of the convex back edge (see FIG. 3, col. 3, lines 27-32). A case 20 then is attached to the body 1. In this regard, Card explains that (see col. 4, lines 49-61, and FIG. 6):

...The elements 4 which are fixed to the book body, engage in the recesses or cavities 25 and cooperate with end papers which are pasted to the inside of the cover boards and to the adjacent sheets of the book body, in retaining the book body firmly within the case. The arrangement thus strengthens the book binding and serves to prevent forward sagging of the leaves of the book body, and thereby prolong the useful life and appearance of the binding. The binding serves to retain the rounding at the back and front of the book which facilitates handling of the book and prevents the front of the book becoming flat or convex in form, due to sagging of the leaves.

In accordance with this disclosure, the book body 1 is secured to the case by virtue of (1) the attachment of the longitudinal elements 4 to the side edges of the convex back edge of the book body 1 and the recesses formed by the inwardly curved portions 24 of the case (see FIG. 6), and (2) the attachment of the end papers inside of the cover boards 21, 22 to the outside pages of the book body 1. Thus, in accordance with Card's teachings the convex back edge of the book body 1 is not attached to the spine 23 of the case 20, resulting in the production of a perfectly bound book with a floating spine (see FIG. 6).

The Examiner has taken the position that one skilled in the art would have been motivated to attach Watson's cover to Card's book body 1 (which includes the support 3) "in order to have a bound book in which the sheets are more strongly bound together." Watson, however, already discloses a method of binding loose sheets into a text body. In particular, Watson discloses a cover 30 that includes a central stripe 41 of heat-activated adhesive 13 flanked by adjacent stripes 41 of pressure sensitive adhesive 40 (see FIG. 7, col. 5, lines 58-64).

In operation, the pressure sensitive adhesive strips 41 are attached to the unbound sheets of the book 15; next, unbound sheets of the book 15 are bound by melting the heat-activated adhesive (see col. 5, line 65 - col. 6, line 5). Watson's method allows a user to use a simple sequence of operations in order to (i) attach a cover to a set of loose unbound sheets and (ii) bind the loose unbound sheets.

One skilled in the art would not have had any apparent reason to apply Watson's cover 30 to Card's book body 1 (which includes the support 3). To the contrary, such a modification of Watson's teachings would defeat the readily apparent inherent advantage of Watson's method, which allows a user to both (i) attach a cover to a set of loose unbound sheets and (ii) bind the loose unbound sheets using a simple sequence of operations. In addition, the Examiner's proposed binding of Card's book body 1 to Watson's cover 30 would defeat the object of Card's teachings (i.e., to produce a perfectly bound book with a floating spine). In particular, the central stripe 41 of heat-activated adhesive 13 on Watson's cover 30 would adhere to the back edge of Card's book body 1 during cover attachment, thereby defeating Card's objective of producing a perfectly bound book with a floating spine.

Thus, both Watson and Card teach away from the Examiner's proposed modification of Watson's disclosure.

In addition, the motivation given by the Examiner in support of the combination of Watson and Card (i.e., "in order to have a bound book in which the sheets are more strongly bound together") would not have given one skilled in the art any apparent reason to combine the reference teachings in the manner proposed by the Examiner. In particular, the strength with which the sheets are bound together in Card's approach depends entirely on the binding strength of the sheets to the backing support 3; the sheet binding strength is independent of the type of cover that attached to Card's book body 15. Therefore, the use of Watson's cover 30 with Card's body would not produce "a bound book in which the sheets are more strongly bound together." Consequently, the rationale given by the Examiner in support of the rejection of independent claim 9 amounts to no more than a conclusory statement that does not have any rational underpinning that supports a rejection under 35 U.S.C. § 103. See *KSR Int'l Co. v. Teleflex Inc.*, No. 04-1350, slip op. at 14 (U.S. Apr. 30, 2007) (citing *In re Kahn*, 441 F. 3d 977, 988 (CA Fed. 2006): "[R]ejections on obviousness grounds cannot be sustained by mere

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conclusory statements; instead, there must be some articulated reasoning with some rational underpinning to support the legal conclusion of obviousness”).

For at least these reasons, the rejection of claim 9 under 35 U.S.C. § 103(a) over Watson in view of Card should be withdrawn.

2. Dependent claims 10, 21-24, 27-29, 36, 37, and 39

Each of claims 10, 21-24, 27-29, 36, and 37-39 incorporate the elements of independent claim 9 and therefore is patentable over Watson in view of Card for at least the same reasons explained above.

B. Claim 11

The Examiner has rejected claim 11 under 35 U.S.C. § 103(a) over Watson (U.S. 3,847,718) in view of Card (U.S. 3,739,412) and Nakamura (JP 05038891).

Claim 11 has been amended and now depends from independent claim 9. Nakamura does not make-up for the failure of Watson and Card to disclose or suggest the elements of independent claim 9 discussed above. Therefore, claim 11 is patentable over Watson in view of Card and Nakamura for at least the same reasons explained above in connection with independent claim 9.

C. Claims 12 and 13

The Examiner has rejected claims 12 and 13 under 35 U.S.C. § 103(a) over Watson (U.S. 3,847,718) in view of Card (U.S. 3,739,412), Nakamura (JP 05038891), and Rossini (U.S. 5,261,996).

Each of claims 12 and 13 incorporates the elements of independent claim 9. Rossini does not make-up for the failure of Watson, Card, and Nakamura to disclose or suggest the elements of independent claim 9 discussed above. Therefore, claims 12 and 13 are patentable over Watson in view of Card, Nakamura, and Rossini for at least the same reasons explained above in connection with independent claim 9.

D. Claim 30

The Examiner has rejected claim 30 under 35 U.S.C. § 103(a) over Watson (U.S. 3,847,718) in view of Card (U.S. 3,739,412), Nakamura (JP 05038891), and Rossini (U.S. 5,261,996).

Independent claim 30 recites:

30. A bookbinding system, comprising:

a sheet binder configured to bind two or more sheets into a text body having an exposed spine bounded by two exposed side hinge areas;

an adhesive dispenser configured to apply a solid pressure sensitive adhesive film between a cover and the side hinge areas of the text body, wherein the adhesive dispenser dispenses the solid pressure sensitive adhesive from a roll of solid sheet adhesive that comprises a pressure sensitive adhesive composition dispersed on a carrier ribbon, and the adhesive dispenser applies the solid pressure sensitive adhesive film by releasing a film of the pressure sensitive adhesive composition from the carrier ribbon and reeling-in spent carrier ribbon; and

a cover binder configured to bind the cover to the side hinge areas of the text body by applying pressure to the cover.

The Examiner has acknowledged that neither Watson nor Card nor Nakamura discloses an adhesive dispenser that includes a take-up spool configured to reel-in spent carrier ribbon on which a solid pressure sensitive adhesive film was disposed, as recited in claim 30. The Examiner has cited Rossini in an effort to make-up for this failure of the teachings of the other cited references. In particular, the Examiner has stated that "Rossini teaches the use of a supply spool 42 configured to support a roll of adhesive tape 34 with a carrier ribbon 48, and which uses a take-up spool 46 disposed within the housing 10 for the purpose of winding up the used carrier ribbon 48." Contrary to the Examiner's statement, however, Rossini does not teach that the take-up spool reels in the web material 34, which serves as the carrier ribbon on which the adhesive is disposed. Instead, Rossini teaches that the take-up reel 46 is used to wind the waste strip of a protective release layer 48 that may be disposed on the adhesive side of the tape (see col. 8, lines 19-34).

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Thus, none of the cited references discloses or suggest "the adhesive dispenser applies the solid pressure sensitive adhesive film by releasing a film of the pressure sensitive adhesive composition from the carrier ribbon and reeling-in spent carrier ribbon," as recited in claim 39. Consequently, there is no combination of the cited references that possibly could disclose or suggest such a feature. For at least this reason, the Examiner's rejection of claim 30 under 35 U.S.C. § 103(a) over Watson in view of Card, Nakamura, and Rossini should be withdrawn.

III. Conclusion

For the reasons explained above, all of the pending claims are now in condition for allowance and should be allowed.

Charge any excess fees or apply any credits to Deposit Account No. 08-2025.

Respectfully submitted,



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